



Attorney Docket No. 009848/0276439

THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PATENT APPLICATION Of:) Group Art Unit: 1638
Rohde, et al.) Examiner: Anne R. Kubelik, Ph.D.
U.S. Serial No.: 09/700,349)
Filed: March 16, 2001)
For: METHOD FOR PRODUCING PLANTS)
HAVING AN INCREASED TOLERANCE)
AGAINST DROUGHT AND/OR FUNGAL)
ATTACK AND/OR INCREASED SALT)
CONCENTRATIONS AND/OR EXTREME)
TEMPERATURE BY THE EXPRESSION OF)
PLASMODESMATA-LOCALIZED)
PROTEINS)

DECLARATION OF PROF. DR. WOLFGANG ROHDE UNDER 37 C.F.R. § 1.132

Assistant Commissioner for Patents
U.S. PATENT AND TRADEMARK OFFICE
Box 1450
Alexandria, VA 22313-1450

Sir:

I, the undersigned WOLFGANG ROHDE, do hereby declare:

1. I am a co-inventor of the subject matter claimed in the above-identified United States Patent Application, Serial No. 09/700,349, filed at the United States Patent and Trademark Office on March 16, 2001,

2. I am currently Group Leader at the Max-Planck-Institut für Züchtungsforschung, Köln, in the Department of Yield Physiology and Plant Breeding, a position I have held since 1985. Prior to 1985, I held positions as: Visiting Scientist at the Dept. of Plant Pathology, Waite

Agricultural Research Institute, University of Adelaide, Australia (1983-1984); Heisenberg Fellow of the Deutsche Forschungsgemeinschaft (1979-1984); Research Assistant at the Institute of Virology (Faculty of Human Medicine) at the Justus Liebig-Universität, Gie_en (1974-1979); Assistant Research Microbiologist at the Department of Microbiology, UC San Francisco (1973-1974); Visiting Research Chemist at the Department of Chemistry, UC Santa Barbara, and the Department of Biochemistry and Biophysics, UC San Francisco, as a fellow of the Deutsche Forschungsgemeinschaft (1971-1973); and Research Assistant at the Max-Planck-Institut für-Experimentelle Medizin, Göttingen (1969-1971). I was awarded a "Habilitation" in Virology and Molecular Biology in 1979, a Ph.D. in Organic Chemistry in 1969 from Christian-Albrechts-Universität, Kiel, and a Diploma in 1967 from Christian-Albrechts-Universität, Kiel.

3. I am familiar with the Examiner's rejection of Claims 28-37 in the July 2, 2003, Office Action issued in the above-identified application.

4. In the Office Action, the Examiner stated that the specification "provides no evidence that plants transformed with pr17 or any other virus-encoded transport protein are tolerant to extreme temperatures." (Office Action, page 3, lines 10-12). Although data on temperature extremes are not explicitly provided in the patent application, I have generally observed that tolerance to drought and extreme temperatures go hand in hand. We have demonstrated that plants transformed with a virus-encoded transport protein are tolerant to drought. Consequently, plants tolerant to drought would be expected to be tolerant to extreme temperatures.

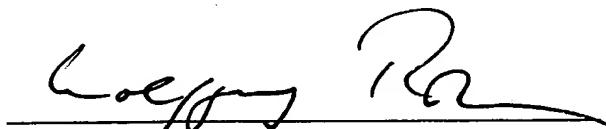
5. In the Office Action, the Examiner stated that "it is unclear that a nucleic acid encoding pr17 + SEQ ID NO: 1 would work in other plants." (Office Action, page 4, lines 2-3). Both monocotyledonous and dicotyledonous plants can be transformed by appropriate pr17 or pr17-N constructs and result in transgenic plants with increased tolerance to drought, fungal infections, and extreme temperatures.

6. In the Office Action, the Examiner stated that "the specification is not enabled for use of any nucleic acid other than the one encoding pr17 operably linked to SEQ ID NO: 1."

(Office Action, page 4, lines 9-10). Other derivatives of pr17 or different movement proteins (MPs) of other plant viruses, whether wild-type or mutant MPs, when expressed in transgenic plants, should confer tolerance to drought, fungal infections, and extreme temperatures.

7. I declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. §1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

By:



Prof. Dr. Wolfgang Rohde

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Date: Sept 12, 2003